

PE NUMBER: 0401130F

UNCLASSIFIED

PE TITLE: C-17 Aircraft

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 7 - Operational System Development				PE NUMBER AND TITLE 0401130F C-17 Aircraft				PROJECT 2569		
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
2569 C-17 Aircraft	101,822	118,228	170,718	132,307	110,921	108,676	110,964	113,260	0	6,766,584
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0*

*** Aircraft T-1, FY87 Funded**

(U) **A. Mission Description**
 Airlift provides essential flexibility when responding to contingencies on short notice anywhere in the world. It is a major element of America's national security strategy and constitutes the most responsive means of meeting U.S. mobility requirements. Additional airlift capability is needed for rapid deployment of combat forces in support of national objectives. Specific tasks associated with the airlift mission include deployment, employment (airland and airdrop), sustaining support, retrograde, and combat redeployment. The C-17 can perform the entire spectrum of airlift missions and is specifically designed to operate effectively and efficiently in both strategic and theater environments. The C-17 provides a vast increase in overall airlift capability necessary to replace and exceed the capabilities lost from retiring the aging C-141 fleet from the Air Force inventory. Not only can the C-17 deliver outsize cargo to austere tactical environments, but it also reduces ground time during airland operations. The C-17 will perform the airlift mission well into the 21st century. RDT&E efforts support producibility enhancements and product improvements, including correction of Operational Test & Evaluation (OT&E) deficiencies.

(U) **FY 1998 (\$ in Thousands):**

- (U) 88,432 Continue product improvement development & testing
- (U) 2,608 Airframe durability test teardown
- (U) 10,782 PE/PI Government flight test
- (U) \$101,822 Total

(U) **FY 1999 (\$ in Thousands):**

- (U) 100,616 Continue product improvement development & testing
- (U) 4,300 Landing Gear durability test and Landing Gear and Aircraft Durability Improvements
- (U) 10,000 PE/PI Government flight test
- (U) 3,683 Identified as a source for SBIR
- (U) \$118,228 Total

Project 2569
Page 1 of 6 Pages
Exhibit R-2 (PE 0401130F)

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE February 1999
BUDGET ACTIVITY 7 - Operational System Development	PE NUMBER AND TITLE 0401130F C-17 Aircraft	PROJECT 2569

(U) FY 2000 (\$ in Thousands):

- (U) 121,518 Continue Product Improvement Development & Testing
- (U) 5,200 Aircraft Durability Improvements

- (U) 34,000 Open architecture hardware and software facilitate avionics modernization driven by GATM requirements and diminishing sources of manufacture and repair
- (U) 10,000 PE/PI Government Flight Test
- (U) \$170,718 Total

(U) FY 2001 (\$ in Thousands):

 - (U) 113,707 Continue Product Improvement Development & Testing
 - (U) 8,600 Aircraft Durability Improvements
 - (U) 10,000 PE/PI Government Flight Test
 - (U) \$132,307 Total

(U) **B. Budget Activity Justification:**
This program element is budgeted in Budget Activity 7, Operational System Development, because the program has completed Milestone III and is continuing producibility and performance improvements to support full-rate production and increase the operational capability of the C-17 through programmed modifications.

UNCLASSIFIED

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BUDGET ACTIVITY 7 - Operational System Development	PE NUMBER AND TITLE 0401130F C-17 Aircraft					PROJECT 2569				
(U) C. <u>Program Change Summary (\$ in Thousands)</u>										
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>					
(U) Previous President's Budget (FY 1999 PB)	104,568	123,069	154,369	159,266	6,614,894					
(U) Appropriated Value	110,605	119,069								
(U) Adjustments to Appropriated Value										
a. Congressional/General Reductions	-3,742	-841								
b. SBIR/STRR	-2,307									
c. Omnibus or Other Above Threshold Reprogram	-709									
d. Below Threshold Reprogramming (BTR)	-2,025									
(U) Adjustments to Budget Years Since FY 1999 PB			16,349	-26,959						
(U) Current Budget Submit/FY 2000 PB	101,822	118,228	170,718	132,307	6,766,584					
(U) Significant Program Changes:										
Funding: \$1,500 in FY98 identified as a source for a BTR.										
The FY00 and FY01 funding changes reflect a transfer to fund other priorities within the C-17 program.										
FY99 - \$3,683 identified as a source for SBIR.										
(U) D. <u>Other Program Funding Summary (\$ in Thousands)</u>										
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) APAF, MYP, BA02, PE0401130F	2,130,890	2,891,026	3,385,047	3,368,535	3,235,628	1,914,962	1,524,732	2,306,170	0	40,328,037
(U) APAF, Initial Spares, BA06, PE0401130F	128,194	112,011	0	0	0	0	0	0	0	848,185
(U) APAF, A/C Mods, BA05, PE0401130F	39,908	55,147	95,643	107,590	133,384	135,273	185,746	253,843	0	1,108,208
(U) MilCon, Facilities, PE0401130F	6,470	70,956	6,247	27,200	0	0	0	0	0	361,278
<div style="display: flex; justify-content: space-between;"> Project 2569 Page 3 of 6 Pages Exhibit R-2 (PE 0401130F) </div>										

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE February 1999	
BUDGET ACTIVITY 7 - Operational System Development					PE NUMBER AND TITLE 0401130F C-17 Aircraft					PROJECT 2569	

(U) **E. Acquisition Strategy**

The C-17 Acquisition Strategy is based on five separate contracts to support the entire scope of the C-17 weapon system. These five contracts are: 1) a multi-year procurement (MYP) aircraft contract (to economically purchase the full complement of production aircraft) - (APAF); 2) a Producibility Enhancement and Performance Improvement (PE/PI) contract (to develop cost reduction changes, capability enhancements, and design fixes to service-revealed problems) - (RDT&E, AF); 3) a Flexible Sustainment (field support) contract (to support the current and future fielded aircraft) - (APAF); 4) a MYP engine contract (for Government Furnished Equipment [GFE] engines) - (APAF); and 5) an aircrew training systems (ATS) contract (for aircrew training) - (APAF).

The Congressionally-mandated Mobility Requirements Study (MRS), initially forwarded to Congress on 23 Jan 92 and updated on 28 Mar 95, validated the need for the C-17 aircraft. Two C-17 Defense Acquisition Board (DAB) decisions, contained in the 3 Nov 95 and 1 Feb 96 USD(A&T) Acquisition Decision Memoranda (ADMs), directed the Air Force to proceed with a 120-aircraft production program and pursue a multi-year procurement for the last 80 aircraft. The FY96 Supplemental Appropriations Act and FY97 Defense Appropriations Act approved a 7-year MYP program. The Air Force is proceeding with an 80-aircraft MYP program (along with engines to support them) to complete a 120-aircraft total purchase at the maximum affordable rate (FY97-03 Quantity: 8-9-13-15-15-15-5), beginning with the economic order quantity (EOQ) funding in FY96. Fourteen additional C-17s have been programmed at the end of the 80-aircraft MYP (FY03 +1, FY04 +5, FY05 +8) to meet SOF requirements not included in the 120 aircraft program. The adjusted program is: FY03, 6; FY04, 5; FY05, 8.

(U) **F. Schedule Profile**

	<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Lot X (9 a/c)	*															
Lot XI Adv Proc(13 a/c)		*														
Lot XI (13 a/c)					*											
Lot XII Adv Proc (15 a/c)						X										
Lot XII (15 a/c)									X							
Lot XIII Adv Proc (15 a/c)										X						
Lot XIII (15 a/c)													X			
Lot XIV Adv Proc (15 a/c)														X		

* = completed event
X = planned event

Project 2569
Page 4 of 6 Pages
Exhibit R-2 (PE 0401130F)

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 1999			
BUDGET ACTIVITY 7 - Operational System Development					PE NUMBER AND TITLE 0401130F C-17 Aircraft				PROJECT 2569		
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U)	Identified as a source for SBIR				0	3,683	0	0			
(U)	Open architecture				0	0	34,000	0			
(U)	Contractor Furnished Engineering & Test				90,942	104,045	126,718	122,307			
(U)	Test, Other Government Costs (OGC)				10,880	10,500	10,000	10,000			
(U)	Total				101,822	118,228	170,718	132,307			
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
Identified as a source for SBIR							3,683				3,683
<u>Product Development Organizations</u>											
Douglas Aircraft	C,FPI/FP	8/31/81	5,190,366	5,190,366	5,190,366	0	0			0	5,190,366
Douglas Aircraft	C,CPFF	7/13/95	1,016,277	1,016,277	146,633	88,436	103,645	160,718	122,307	403,821	1,025,560
Pratt & Whitney	C,FP	5/24/91	25,346	25,346	25,346	0	0			0	25,346
Douglas Aircraft	C,FPI	4/14/89	na	na	83,885	0	0			0	83,885
Pratt & Whitney	FP+EPA	4/18/95	8,300	8,300	5,000	2,506	400			0	7,906
Project 2569					Page 5 of 6 Pages			Exhibit R-3 (PE 0401130F)			

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)									DATE February 1999		
BUDGET ACTIVITY 7 - Operational System Development					PE NUMBER AND TITLE 0401130F C-17 Aircraft					PROJECT 2569	
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
Support and Management Organizations											
Mission Support OGC	PO				97,175	98	100	0	0	0	97,373
Site Activation OGC	PO				1,539	0	0	0	0	0	1,539
Miscellaneous					19,741	0	400	0	0	0	20,141
Test and Evaluation Organizations											
Combined Test Force	PO	Dec 97			216,721	10,782	10,000	10,000	10,000	40,000	297,503
Wright Labs/Arnold	PO				10,252	0	0			0	10,252
Eng Dev Center											
Other	PO				3,030	0	0			0	3,030
Government Furnished Property: None											
Identified as a source for SBIR											
							3,683				3,683
Subtotal Product Development					5,451,230	90,942	104,045	160,718	122,307	403,821	6,333,063
Subtotal Support and Management					118,455	98	500	0	0	0	119,053
Subtotal Test and Evaluation					230,003	10,782	10,000	10,000	10,000	40,000	310,785
Total Project					5,799,688	101,822	118,228	170,718	132,307	443,821	6,766,584
Project 2569											
Page 6 of 6 Pages											
Exhibit R-3 (PE 0401130F)											